



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,927	02/10/2006	Choon Kooi Chai	4702-40	5373
23117 7590 08/26/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
NUTTER, NATHAN M				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
08/26/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/567,927

**Applicant(s)**

CHAI, CHOON KOOI

**Examiner**

Nathan M. Nutter

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/08)  
Paper No(s)/Mail Date 02-06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 22-44 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The unit of measure for the concept "melt index" which is critical or essential to the practice of the invention, but not included in the claims is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The characteristic of "melt flow rate", recited in the claims, as well as in the Specification numerous times does not have any signifying unit measure, such as g/10 min., dg/10 min., g/min., dg/min., etc.. The Specification fails to label these numbers, and it cannot be ascertained what exactly is being presented or claimed.

Claims 22-44 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for polymers having melt indices, does not reasonably provide enablement for any type of unit for the melt index measurement. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make any use the invention commensurate in scope with these claims.

Case law holds that applicant's specification must be "commensurately enabling [regarding the scope of the claims]." See *Ex Parte Kung*, 17 USPQ2d 1545, 1547 (Bd.

Pat. Appl. Inter. 1990). Otherwise **undue experimentation** would be involved in determining how to practice and use applicant's invention. The test for undue experimentation as to whether or not all compounds within the scope of claims 22-44 can be used as claimed and whether claims 22-44 meet the test is stated in *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. Appl. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988). Upon applying this test to claims 22-44, it is believed that undue experimentation **would** be required because:

(a) *The quantity of experimentation necessary* is **great** since claims 22-44 read on any type of unit for the melt index measurement such as shown by the references, as cited below.

Prior art references show a multitude of units for melt index. Koshirai et al (US 2001/0016627) teach at Table 10 the melt flow rate measured as "g/min." Likewise, in Nishihara et al (US 6,417,271) at column 4 (lines 40-48) and claim 10, the melt flow rate is measured as "g/min." The passage at column 4 (lines 40-47) is clear that the melt flow rate (of the reference component B) "is preferably in a range of 0.1 to 100 g/min....When it exceeds 100 g/min, (the upper limit)....and when it is less than 1 g/10 min (the lower limit, which is equal to the 0.1 g/min disclosed).." It is clear from this reference that the units are interchangeable and depend only on the particular volume of mass passing the chosen orifice, in terms of minutes, used for the measurement. Applicants' attention is directed to Braganca et al (US 6,864,332) at each of Tables 1, 5, 6 and 7, wherein the units are "dg/10 min." Also, in Longmoore et al (US 6,497,965) at column 3 (lines 34-44), the melt flow rate is measured as "dg/10 min." Applicants'

attention is directed to Niyogi (US 6,451,897) which shows a melt flow rate measured in "kg/min" at column 10 (lines 37-42). Adkins et al (US 2004/0074571), refer to melt flow rate at paragraphs [0035], [0036] and [0037] in terms of "kg/min." The reference to Gaku et al (US 4,871,811), refers to melt flow rate in terms of "kg/min" at column 8, Example 4. Yoshihara (US 5,506,056), shows a melt flow rate unit of "kg/10 min" at column 17 (lines 18-24). The multitude of references shows units for melt flow rate to be interchangeable, and not a standardized unit.

(b) There is **no direction or guidance presented** for making a polymer comprising any type of unit for the melt index measurement.

(c) There is an **absence of working examples** concerning making polymers comprising any type of unit for the melt index measurement.

In light of the above factors, it is seen that undue experimentation would be necessary to make and use the invention of claims 22-44.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 22, 37, 43 and 44, the recitations of the melt index, as well as claims 25 and 30, as a bare number, render the claims as vague and confusing since the proper metes and bounds of the claims, and those

dependent thereon, cannot be properly ascertained. A different unit of Melt Index may provide a completely different composition.

In claim 24, the density is expressed as a bare number. This renders the claim as vague and confusing.

In claim 27, expression of flow activation energy, as a bare number, renders the claim as vague and confusing.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-44 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chum et al (US 6,723,398), newly cited.

The patent to Chum et al teaches the manufacture of a polymer blend comprising a copolymer of ethylene with a density of "less than or equal to 0.95 g/cm<sup>3</sup>" and a melt index of from "about 0.001 g/ 10 minutes" to "about 10 g/10 minutes." Note column 3 (line 58) to column 4 (line 13) and column 8 (lines 8-25). The polymer may have two or more melting peaks at column 7 (lines 36-48). Further, note column 9 (lines 42-67). The second polymer is taught as being a low density polyethylene at column 7 (lines 48-57) and column 11 (line 34) to column 12 (line 29). The compositional limitations are shown at the paragraph bridging column 7 to column 8. The reference shows use as an extrusion coating. See claim 26.

The reference teaches the production of a polyethylene/alpha-olefin LDPE blend, as herein contemplated. The reference is silent as to the elastic modulus of the ethylene/alpha-olefin copolymer and as to the method of preparation using a metallocene catalyst as recited in claims 38-42. While the reference does not show the elastic modulus of the ethylene/alpha-olefin copolymer, the limitation does not serve to define over the teachings of the reference as to composition or constituents employed. As such, the elastic modulus would be expected from the composition as taught, unless shown otherwise. Further, with regard to the recitations of claims 39-42 as to the

"copolymer (a) is prepared by use of a catalyst system..." the claims are drawn to a composition not to a method. It has been held in SmithKline Beecham Corp. v. Apotex Corp., No. 04-1522 (Fed. Cir. February 24, 2006) that product-by-product claims are not claim limitations.

Once a reference teaching a product appearing to be substantially identical is made the basis of a rejection and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980). In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977). In re Schreiber, 128 F.3d 1473, 1478, 44 USPQ2d 1429, 1432 (Fed. Cir. 1997).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nathan M. Nutter/  
Primary Examiner, Art Unit 1796

nmn

24 August 2008